



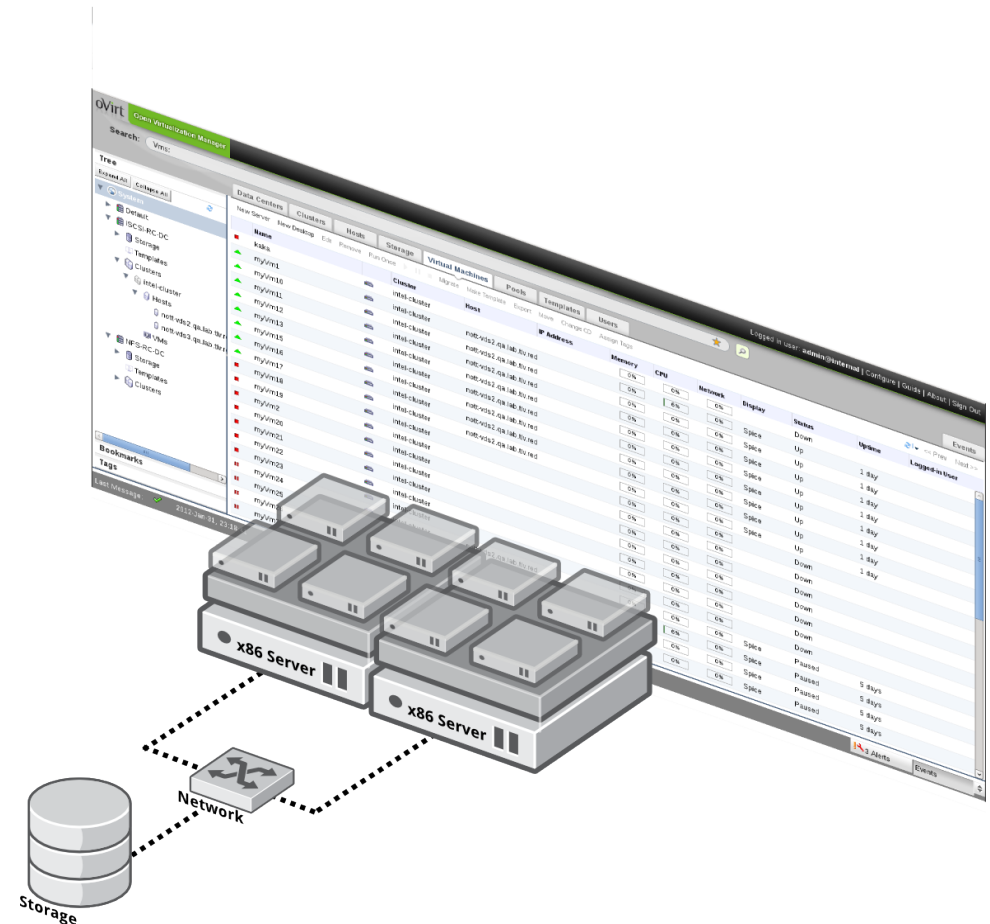
oVirt introduction

FOSDEM 2013

Doron Fediuck
Red Hat

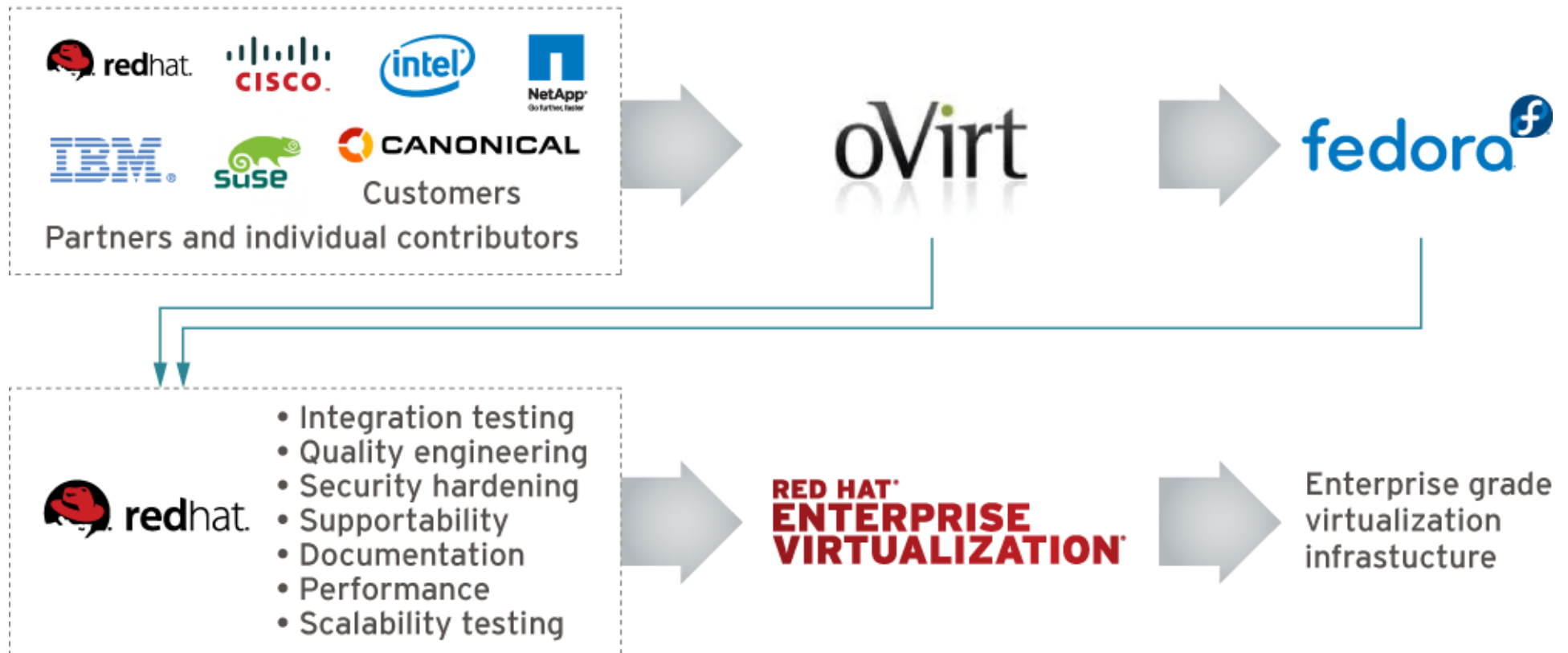
What is oVirt?

- Large scale, centralized management for server and desktop virtualization
- Based on leading performance, scalability and security infrastructure technologies
- Provides an open source alternative to vCenter/vSphere



- Merit based, open governance model
- Built using the best concepts taken from Apache and Eclipse Foundations
- Governance split between board and projects
 - oVirt Board
 - Multiple projects under the oVirt brand

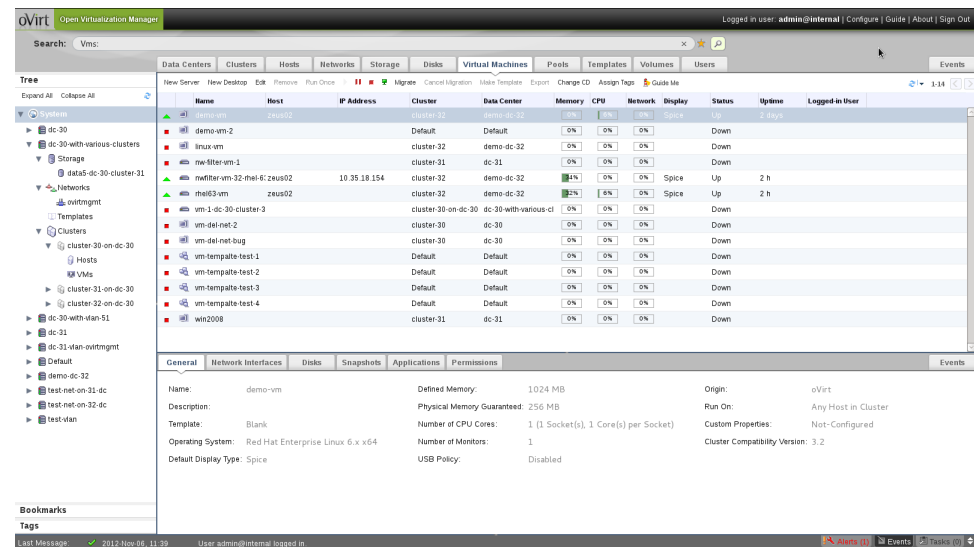
OPEN VIRTUALIZATION MANAGEMENT



oVirt Engine



- JBoss-based Java application
- Communicates with hypervisor nodes
- Manages VM lifecycle
- Controlled with:
 - Admin Portal
 - User Portal
 - REST API
 - Python SDK
 - Command Line Shell



Administration Console



Activities Firefox

Fri 22:13

en [Speaker Icon] [Bluetooth Icon] [Wi-Fi Icon] [Battery Icon] Itamar Heim

oVirt Enterprise Virtualization Engine Web Administration - Mozilla Firefox

File Edit View History Bookmarks Tools Help

oVirt Enterprise Virtualization E...

hateya-fed16.qa.lab.tlv.redhat.com:8080/webadmin/webadmin/WebAdmin.html#vms

Google

oVirt Open Virtualization Manager

Logged in user: admin@internal | Configure | Guide | About | Sign Out

Search: Vms:

Data Centers Clusters Hosts Storage Virtual Machines Pools Templates Users

Events

New Server New Desktop Edit Remove Run Once Migrate Make Template Export Move Change CD Assign Tags

<< Prev Next >>

Tree

Expand All Collapse All

- System
 - Default
 - ISCSI-RC-DC
 - Storage
 - Templates
 - Clusters
 - intel-cluster
 - Hosts
 - nott-vds2.qa.lab.tlv.red
 - nott-vds3.qa.lab.tlv.red
 - VMs
 - NFS-RC-DC
 - Storage
 - Templates
 - Clusters

Bookmarks

Tags

Name	Cluster	Host	IP Address	Memory	CPU	Network	Display	Status	Uptime	Logged-in User
kaka	intel-cluster			0%	0%	0%		Down		
myVm1	intel-cluster	nott-vds2.qa.lab.tlv.red		0%	6%	0%	Spice	Up	1 day	
myVm10	intel-cluster	nott-vds2.qa.lab.tlv.red		0%	0%	0%	Spice	Up	1 day	
myVm11	intel-cluster	nott-vds2.qa.lab.tlv.red		0%	0%	0%	Spice	Up	1 day	
myVm12	intel-cluster	nott-vds2.qa.lab.tlv.red		0%	0%	0%	Spice	Up	1 day	
myVm13	intel-cluster	nott-vds2.qa.lab.tlv.red		0%	0%	0%	Spice	Up	1 day	
myVm15	intel-cluster	nott-vds2.qa.lab.tlv.red		0%	0%	0%	Spice	Up	1 day	
myVm16	intel-cluster	nott-vds2.qa.lab.tlv.red		0%	0%	0%	Spice	Up	1 day	
myVm17	intel-cluster	nott-vds2.qa.lab.tlv.red		0%	0%	0%	Spice	Up	1 day	
myVm18	intel-cluster			0%	0%	0%		Down		
myVm19	intel-cluster			0%	0%	0%		Down		
myVm2	intel-cluster			0%	0%	0%		Down		
myVm20	intel-cluster			0%	0%	0%		Down		
myVm21	intel-cluster			0%	0%	0%		Down		
myVm22	intel-cluster			0%	0%	0%		Down		
myVm23	intel-cluster			0%	0%	0%		Down		
myVm24	intel-cluster	nott-vds2.qa.lab.tlv.red		0%	0%	0%	Spice	Paused	5 days	
myVm25	intel-cluster	nott-vds2.qa.lab.tlv.red		0%	6%	0%	Spice	Paused	5 days	
myVm26	intel-cluster	nott-vds2.qa.lab.tlv.red		0%	0%	0%	Spice	Paused	5 days	
myVm27	intel-cluster	nott-vds2.qa.lab.tlv.red		0%	0%	0%	Spice	Paused	5 days	

Last Message: 2012-Jan-31, 23:18:41 User admin@internal logged in.

3 Alerts

Events

Add Host

oVirt

Activities Firefox

Fri 22:23

en Itamar Heim

oVirt Enterprise Virtualization Engine Web Administration - Mozilla Firefox

File Edit View History Bookmarks Tools Help

oVirt Enterprise Virtualization E...

hateya-fed16.qa.lab.tlv.redhat.com:8080/webadmin/webadmin/WebAdmin.html#hosts

Google

oVirt Open Virtualization Manager

Logged in user: admin@internal | Configure | Guide | About | Sign Out

Search: Host:

Data Centers Clusters **Hosts** Storage Virtual Machines Pools Templates Users

Events

Tree

Expand All Collapse All

- System
 - Default
 - ISCSI-RC-DC
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 - intel-cluster
 - Hosts
 - nott-vds2.qa.lab.tlv.r
 - nott-vds3.qa.lab.tlv.r
 - VMs
 - NFS-RC-DC
 - Storage
 - Templates
 - Clusters

Name

- ! nott-vds2.qa.lab.tlv.redhat.com
- ! nott-vds3.qa.lab.tlv.redhat.com
- ! nott-vdsa.qa.lab.tlv.redhat.com

New Host

General

Power Management

Data Center Default

Host Cluster Default

Name

Address

Root Password

Override IP tables ☒

OK Cancel

	Memory	CPU	Network	SpmStatus
8 VMs	25%	0%	0%	SPM
0 VMs	0%	0%	0%	None
0 VMs	0%	0%	0%	None

Bookmarks

Tags

Last Message: 2012-Jan-31, 23:18:41 User admin@internal logged in.

3 Alerts

Events

Browser Firefox version 9 is currently not supported.

Power Management



Activities Firefox

Fri 22:23

en Itamar Heim

oVirt Enterprise Virtualization Engine Web Administration - Mozilla Firefox

File Edit View History Bookmarks Tools Help

oVirt Enterprise Virtualization E...

hateya-fed16.qa.lab.tlv.redhat.com:8080/webadmin/webadmin/WebAdmin.html#hosts

Google

oVirt Open Virtualization Manager

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Events

Tree
Expand All Collapse All

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 - Default
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 - Templates
 - Clusters
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 - Hosts
 - nott-vds2.qa.lab.tlv.r
 - nott-vds3.qa.lab.tlv.r
 - VMs
 - NFS-RC-DC
 - Storage
 - Templates
 - Clusters

Name
nott-vds2.qa.lab.tlv.redhat.com
nott-vds3.qa.lab.tlv.redhat.com
nott-vdsa.qa.lab.tlv.redhat.com

New Host

General

☒ Enable Power Management

Power Management

Address

User Name

Password

Type

bladecenter

Port

Slot

Options

Please use a comma-separated list of 'key=value' or 'key'

Secure

☐

Test

OK Cancel

	Memory	CPU	Network	SpmStatus
8 VMs	25%	0%	0%	SPM
0 VMs	0%	0%	0%	None
0 VMs	0%	0%	0%	None

Last Message: 2012-Jan-31, 23:18:41 User admin@internal logged in.

3 Alerts

Events

Browser Firefox version 9 is currently not supported.

Setup Networks: Dialog

Setup Host Networks

Drag to make changes

Interfaces	Assigned Logical Networks	Unassigned Logical Networks
<div><div>bond0</div><div>eth1</div><div>eth2</div></div>	<div>NOVM_VLAN_MTU_5 (VLAN 500)</div> <div>VLAN_MTU_5000 (VLAN 222)</div> <div>VLAN_MTU_5000_2 (VLAN 52)</div>	<div>Required</div> <div>NON_VM_MTU_5000</div> <div>Non Required</div> <div>NON_VM_MTU_9000</div> <div>NOVM_VLAN_MTU_9 (VLAN 900)</div> <div>VLAN_MTU_9000 (VLAN 9)</div> <div>VLAN_MTU_9000_2 (VLAN 92)</div>
<div><div>bond1</div><div>eth3</div><div>eth4</div></div>	<div>no network assigned</div>	
<div>eth0</div>	<div>ovirtmgmt</div>	

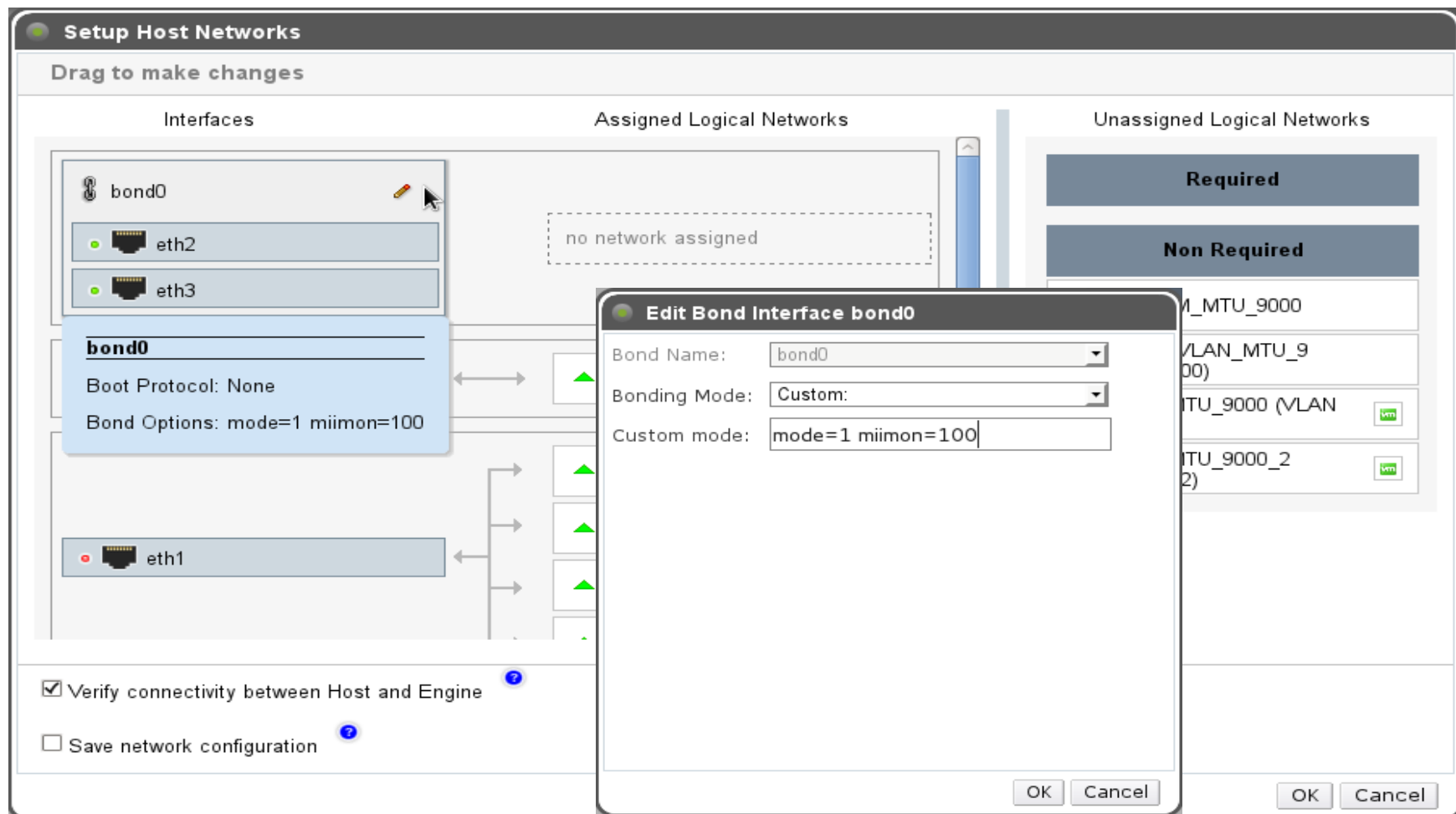
☒ Verify connectivity between Host and Engine

☐ Save network configuration

OK Cancel

Setup Networks: Edit Bond

- Click the pencil icon to edit bond configuration



Add Servers or Desktops

Data Centers

Clusters

Hosts

Networks

Storage

Disks

Virtual Machines

Pools

Templates

Volumes

Users

New Server

New Desktop

Edit

Remove

Run Once

⏮

⏹

⏭

Migrate

Cancel Migration

Make Template

Export

Change CD

Assign Tags

Guide Me

Name	Host
demo-vm	zeus02
demo-vm-2	
linux-vm	
nw-filter-vm-1	
nwfilter-vm-32-rhel-6	zeus02
rhel53-vm	zeus02
vm-1-dc-30-cluster-3	
vm-del-net-2	
vm-del-net-bug	
vm-tempalte-test-1	
vm-tempalte-test-2	
vm-tempalte-test-3	
vm-tempalte-test-4	
win2008	

General

Network Interfaces

Name:

nwfilter-vm-

Description:

Template:

Blank

Operating System:

Red Hat Ent

Default Display Type:

Spice

Priority:

Low

New Server Virtual Machine

General

Initial Run

Console

Host

High Availability

Resource Allocation

Boot Options

Custom Properties

Data Center

demo-dc-32

Host Cluster

cluster-32

Name

Description

Based on Template

Blank

Memory Size

512 MB

Total Virtual CPUs

1

Advanced Parameters

Operating System

Unassigned

OK

Cancel

Status	Uptime	Logged-in User
Up	2 days	
Down		
Down		
Down		
Up	2 h	
Up	2 h	
Down		
Down		
Down		
Down		
Down		
Down		
Down		
Down		
Down		

Origin:

oVirt

Run On:

Any Host in Cluster

Custom Properties:

Not-Configured

Cluster Compatibility Version:

3.2

Even Windows via Sysprep

Data Centers

Clusters

Hosts

Networks

Storage

Disks

Virtual Machines

Pools

Templates

Volumes

Users

New Server

New Desktop

Edit

Remove

Run Once

Migrate

Cancel Migration

Make Template

Export

Change CD

Assign Tags

Guide Me

Name	Host
demo-vm	zeus02
demo-vm-2	
linux-vm	
nw-filter-vm-1	
nwfilter-vm-32-rhel-6	zeus02
rhel63-vm	zeus02
vm-1-dc-30-cluster-3	
vm-del-net-2	
vm-del-net-bug	
vm-tempalte-test-1	
vm-tempalte-test-2	
vm-tempalte-test-3	
vm-tempalte-test-4	
win2008	

General

Network Interfaces

Name:

nwfilter-vm-

Description:

Template:

Blank

Operating System:

Red Hat Ent

Default Display Type:

Spice

Priority:

Low

New Server Virtual Machine

General

Initial Run

Console

Host

High Availability

Resource Allocation

Boot Options

Custom Properties

General

Time Zone

(GMT-12:00) GMT-12:00

Windows

Domain

Status

Uptime

Logged-in User

Up	2 days	
Down		
Down		
Down		
Up	2 h	
Up	2 h	
Down		
Down		
Down		
Down		
Down		
Down		
Down		
Down		

Origin:

oVirt

Run On:

Any Host in Cluster

Custom Properties:

Not-Configured

Cluster Compatibility Version:

3.2

oVirt

Logged in user: **admin@internal** | [Configure](#) | [Guide](#) | [About](#) |

The screenshot displays the OpenStack Horizon web console. The top navigation bar includes tabs for Data Centers, Clusters, Hosts, Networks, Storage, Disks, Virtual Machines (selected), Pools, Templates, Volumes, and Users. Below the navigation bar, there's a toolbar with actions like New Server, New Desktop, Edit, Remove, Run Once, Migrate, Cancel Migration, Make Template, Export, Change CD, Assign Tags, and Guide Me. A sidebar on the left lists various virtual machines under different hosts (zeus02). The main area shows a table of VMs with columns for Name, Host, Status, Uptime, and Logged-in User. Overlaid on this is a modal window titled "New Server Virtual Machine". This window has a left-hand menu with options: General, Initial Run, Console (highlighted), Host, High Availability, Resource Allocation, Boot Options, and Custom Properties. The right pane of the modal shows settings for Protocol (Spice) and USB Support (Disabled). At the bottom of the modal are OK and Cancel buttons.

Host Aspects

Data Centers

Clusters

Hosts

Networks

Storage

Disks

Virtual Machines

Pools

Templates

Volumes

Users

New Server

New Desktop

Edit

Remove

Run Once

⏏

⏏

⏏

Migrate

Cancel Migration

Make Template

Export

Change CD

Assign Tags

Guide Me

Name	Host
demo-vm	zeus02
demo-vm-2	
linux-vm	
nw-filter-vm-1	
nwfilter-vm-32-rhel-6	zeus02
rhel63-vm	zeus02
vm-1-dc-30-cluster-3	
vm-del-net-2	
vm-del-net-bug	
vm-tempalte-test-1	
vm-tempalte-test-2	
vm-tempalte-test-3	
vm-tempalte-test-4	
win2008	

General

Network Interfaces

Name:

nwfilter-vm-

Description:

Template:

Blank

Operating System:

Red Hat Ent

Default Display Type:

Spice

Priority:

Low

New Server Virtual Machine

General

Initial Run

Console

Host

High Availability

Resource Allocation

Boot Options

Custom Properties

Run On:

☒ Any Host in Cluster

☐ Specific

grey-vdsh

Run/Migration Options:

☐ Run VM on the selected host (no migration allowed)

☐ Allow VM migration only upon Administrator specific request (system will not trigger automatic migration of this VM)

CPU Pinning topology

Format: v#p[_v#p]

Examples:

•0#0 => pin vCPU 0 to pCPU 0

•0#0_1#3 => pin vCPU 0 to pCPU 0 and pin vCPU 1 to pCPU 3

•1#1-4,^2 => pin vCPU 1 to pCPU set 1 to 4, excluding 2

OK

Cancel

Status	Uptime	Logged-in User
Up	2 days	
Down		
Down		
Down		
Up	2 h	
Up	2 h	
Down		
Down		
Down		
Down		
Down		
Down		
Down		
Down		
Down		

Origin:

oVirt

Run On:

Any Host in Cluster

Custom Properties:

Not-Configured

Cluster Compatibility Version:

3.2

High Availability



Manager

Logged in user: **admin@internal** | [Configure](#) | [Guide](#) | [About](#)

Data Centers Clusters Hosts Networks Storage Disks Virtual Machines Pools Templates Volumes Users

New Server New Desktop Edit Remove Run Once Migrate Cancel Migration Make Template Export Change CD Assign Tags Guide Me

Name	Host
demo-vm	zeus02
demo-vm-2	
linux-vm	
nw-filter-vm-1	
nwfilter-vm-32-rhel-6: zeus02	
rhel63-vm	zeus02
vm-1-dc-30-cluster-3	
vm-del-net-2	
vm-del-net-bug	
vm-tempalte-test-1	
vm-tempalte-test-2	
vm-tempalte-test-3	
vm-tempalte-test-4	
win2008	

General Network Interfaces

Name: nwfilter-vm-
Description:
Template: Blank
Operating System: Red Hat Ent
Default Display Type: Spice
Priority: Low

New Server Virtual Machine

General

Initial Run

Console

Host

High Availability

Resource Allocation

Boot Options

Custom Properties

☐ Highly Available

Priority for Run/Migration queue:

☒ Low

☐ Medium

☐ High

OK Cancel

Status	Uptime	Logged-in User
Up	2 days	
Down		
Down		
Down		
Up	2 h	
Up	2 h	
Down		
Down		
Down		
Down		
Down		
Down		
Down		
Down		

Origin: oVirt
Run On: Any Host in Cluster
Custom Properties: Not-Configured
Cluster Compatibility Version: 3.2

Control Allocated Resources (Disk, Memory)



Manager

Logged in user: **admin@internal** | [Configure](#) | [Guide](#) | [About](#)

Data Centers

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Pools

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Volumes

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New Server

New Desktop

Edit

Remove

Run Once

Migrate

Cancel Migration

Make Template

Export

Change CD

Assign Tags

Guide Me

Name	Host
demo-vm	zeus02
demo-vm-2	
linux-vm	
nw-filter-vm-1	
nwfilter-vm-32-rhel-6	zeus02
rhel63-vm	zeus02
vm-1-dc-30-cluster-3	
vm-del-net-2	
vm-del-net-bug	
vm-tempalte-test-1	
vm-tempalte-test-2	
vm-tempalte-test-3	
vm-tempalte-test-4	
win2008	

General

Network Interfaces

Name:

nwfilter-vm-

Description:

Template:

Blank

Operating System:

Red Hat Ent

Default Display Type:

Spice

Priority:

Low

New Server Virtual Machine

General

Initial Run

Console

Host

High Availability

Resource Allocation

Boot Options

Custom Properties

Memory Allocation:

Physical Memory Guaranteed

512 MB

Storage Allocation: *(Available only when a template is selected)*

Template Provisioning

☐ Thin

☒ Clone

OK

Cancel

Status	Uptime	Logged-in User
Up	2 days	
Down		
Down		
Down		
Up	2 h	
Up	2 h	
Down		
Down		
Down		
Down		
Down		
Down		
Down		
Down		

Origin:

oVirt

Run On:

Any Host in Cluster

Custom Properties:

Not-Configured

Cluster Compatibility Version:

3.2

oVirt

Logged in user: **admin@internal** | [Configure](#) | [Guide](#) | [About](#) |

[illegible]

Advanced Options via Custom Properties



Manager

Logged in user: **admin@internal** | [Configure](#) | [Guide](#) | [About](#)

Data Centers

Clusters

Hosts

Networks

Storage

Disks

Virtual Machines

Pools

Templates

Volumes

Users

New Server

New Desktop

Edit

Remove

Run Once

Migrate

Cancel Migration

Make Template

Export

Change CD

Assign Tags

Guide Me

Name	Host
demo-vm	zeus02
demo-vm-2	
linux-vm	
nw-filter-vm-1	
nwfilter-vm-32-rhel-6	zeus02
rhel63-vm	zeus02
vm-1-dc-30-cluster-3	
vm-del-net-2	
vm-del-net-bug	
vm-tempalte-test-1	
vm-tempalte-test-2	
vm-tempalte-test-3	
vm-tempalte-test-4	
win2008	

General

Network Interfaces

Name:

nwfilter-vm-

Description:

Template:

Blank

Operating System:

Red Hat Ent

Default Display Type:

Spice

Priority:

Low

New Server Virtual Machine

General

Initial Run

Console

Host

High Availability

Resource Allocation

Boot Options

Custom Properties

sndbuf

sap_agent

vhost

Please select a key...

true

+

-

+

-

+

-

+

-

OK

Cancel

Status	Uptime	Logged-in User
Up	2 days	
Down		
Down		
Down		
Up	2 h	
Up	2 h	
Down		
Down		
Down		
Down		
Down		
Down		
Down		
Down		

Origin:

oVirt

Run On:

Any Host in Cluster

Custom Properties:

Not-Configured

Cluster Compatibility Version:

3.2

User Portal



Activities Firefox Sat 11:27 en Itamar Heim

oVirt User Portal - Mozilla Firefox

File Edit View History Bookmarks Tools Help

oVirt User Portal

redhat.com https://hateya-fed16.qa.lab.tlv.redhat.com:8443/UserPortal/org.ovirt.engine.ui.userportal.UserPortal/UserPortal.html Google

oVirt
User: admin@internal | Sign out | Guide | About

Basic Extended

kaka

Machine is Down

myVm1

Machine is Ready

repro

Machine is Down

up-vm2

Machine is Down

kaka

Operating System : Unassigned

Defined Memory : 1GB

Number of Cores : 1 (1 Socket(s), 1 Core(s) per Socket)

Drives :

Disk 1: 10GB

Console : Spice (Edit)

Self Provisioning Portal



Activities Firefox Sat 11:27 en Itamar Heim

oVirt User Portal – Mozilla Firefox

File Edit View History Bookmarks Tools Help

oVirt User Portal

redhat.com https://hateya-fed16.qa.lab.tlv.redhat.com:8443/UserPortal/org.ovirt.engine.ui.userportal.UserPortal/UserPortal.html Google

oVirt
User: admin@internal | Sign out | Guide | About

Basic Extended

New Server New Desktop Edit Remove Run Once Change CD Make Template

Virtual Machines

Templates

Resources

kaka myVm1 repro up-vm2

CONSOLE

General Network Interfaces Virtual Disks Snapshots Permissions Events Applications Monitor

Name: kaka
Description:
Template: fed16
Operating System: Unassigned
Default Display Type: Spice
Priority: Low

Defined Memory: 1024 MB
Physical Memory Guaranteed: 512 MB
Number of CPU Cores: 1 (1 Socket(s), 1 Core(s) per Socket)
Highly Available: false
USB Policy: Enabled
Resides on Storage Domain: hateya-ovirt-rc-1

Origin: RHEV
Run On: Any Host in Cluster
Custom Properties: Not-Configured

Virtualization Management the oVirt way

REST API



Done

```
-<api>
  <link rel="capabilities" href="/rhev-api/capabilities"/>
  <link rel="clusters" href="/rhev-api/clusters"/>
  <link rel="clusters/search" href="/rhev-api/clusters?search={query}"/>
  <link rel="datacenters" href="/rhev-api/datacenters"/>
  <link rel="datacenters/search" href="/rhev-api/datacenters?search={query}"/>
  <link rel="events" href="/rhev-api/events"/>
  <link rel="events/search" href="/rhev-api/events?search={query}"/>
  <link rel="hosts" href="/rhev-api/hosts"/>
  <link rel="hosts/search" href="/rhev-api/hosts?search={query}"/>
  <link rel="networks" href="/rhev-api/networks"/>
  <link rel="roles" href="/rhev-api/roles"/>
  <link rel="storagedomains" href="/rhev-api/storagedomains"/>
  <link rel="storagedomains/search" href="/rhev-api/storagedomains?search={query}"/>
  <link rel="tags" href="/rhev-api/tags"/>
  <link rel="templates" href="/rhev-api/templates"/>
  <link rel="templates/search" href="/rhev-api/templates?search={query}"/>
  <link rel="users" href="/rhev-api/users"/>
  <link rel="groups" href="/rhev-api/groups"/>
  <link rel="domains" href="/rhev-api/domains"/>
  <link rel="vmpools" href="/rhev-api/vmpools"/>
  <link rel="vmpools/search" href="/rhev-api/vmpools?search={query}"/>
  <link rel="vms" href="/rhev-api/vms"/>
  <link rel="vms/search" href="/rhev-api/vms?search={query}"/>
  <system_version revision="428" build="0" minor="6" major="4"/>
- <summary>
  - <vms>
    <total>22</total>
    <active>5</active>
  </vms>
  - <hosts>
    <total>6</total>
    <active>5</active>
  </hosts>
  - <users>
    <total>2</total>
```


Hosts Collection



Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://10.35.1.171/rhev-api/hosts

http://10.35.1.1...rhev-api/hosts

```
-<hosts>
-<host id="15896dce-edd0-415c-a524-c9b02f278895" href="/rhev-api/hosts/15896dce-edd0-415c-a524-c9b02f278895">
  <name>nari11</name>
  -<actions>
    <link rel="install" href="/rhev-api/hosts/15896dce-edd0-415c-a524-c9b02f278895/install"/>
    <link rel="activate" href="/rhev-api/hosts/15896dce-edd0-415c-a524-c9b02f278895/activate"/>
    <link rel="fence" href="/rhev-api/hosts/15896dce-edd0-415c-a524-c9b02f278895/fence"/>
    <link rel="deactivate" href="/rhev-api/hosts/15896dce-edd0-415c-a524-c9b02f278895/deactivate"/>
    <link rel="approve" href="/rhev-api/hosts/15896dce-edd0-415c-a524-c9b02f278895/approve"/>
    <link rel="iscsilogin" href="/rhev-api/hosts/15896dce-edd0-415c-a524-c9b02f278895/iscsilogin"/>
    <link rel="iscsidiscover" href="/rhev-api/hosts/15896dce-edd0-415c-a524-c9b02f278895/iscsidiscover"/>
    <link rel="commitnetconfig" href="/rhev-api/hosts/15896dce-edd0-415c-a524-c9b02f278895/commitnetconfig"/>
  </actions>
  <link rel="storage" href="/rhev-api/hosts/15896dce-edd0-415c-a524-c9b02f278895/storage"/>
  <link rel="nics" href="/rhev-api/hosts/15896dce-edd0-415c-a524-c9b02f278895/nics"/>
  <link rel="tags" href="/rhev-api/hosts/15896dce-edd0-415c-a524-c9b02f278895/tags"/>
  <link rel="permissions" href="/rhev-api/hosts/15896dce-edd0-415c-a524-c9b02f278895/permissions"/>
  <link rel="statistics" href="/rhev-api/hosts/15896dce-edd0-415c-a524-c9b02f278895/statistics"/>
  <address>nari11.eng.lab.tlv.redhat.com</address>
  <status>UP</status>
  <cluster id="4a5baf0e-7c6d-4d75-9aba-d60f3a188d0b" href="/rhev-api/clusters/4a5baf0e-7c6d-4d75-9aba-d60f3a188d0b"/>
  <port>54321</port>
  <storage_manager>>false</storage_manager>
  -<power_management>
    <enabled>>false</enabled>
    <options/>
  </power_management>
  -<kvm>
    <enabled>>false</enabled>
  </kvm>
  -<transparent_hugepages>
    <enabled>true</enabled>
  </transparent_hugepages>
  -<iscsi>
    <initiator>iqn.1994-05.com.redhat:a7afc41a35b0</initiator>
  </iscsi>
</host>
```

Done

Host networks collection



Mozilla Firefox

File Edit View History Bookmarks Tools Help

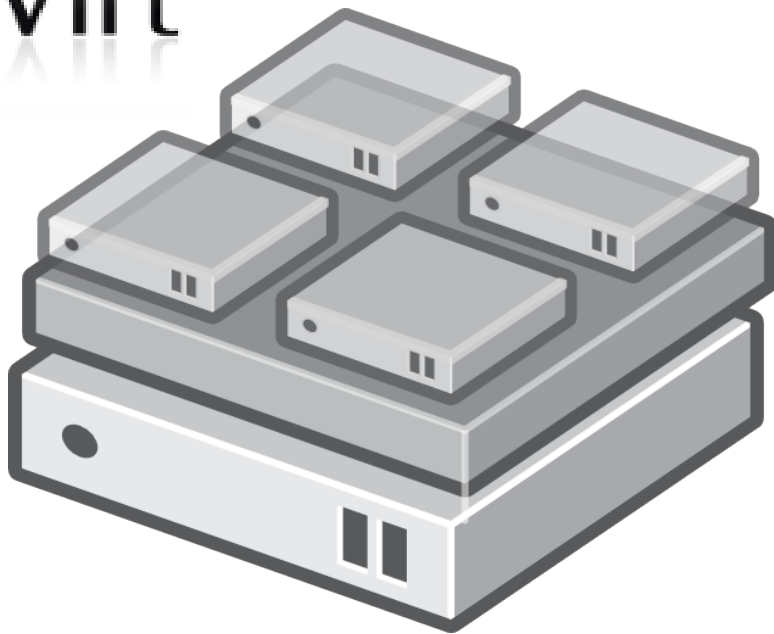
http://10.35.1.171/rhev-api/hosts/15896dce-edd0-415c-a524-c9b02f278895/nics

http://10.35.1.1...b02f278895/nics

This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
-<host_nics>
- <host_nic id="dbb39d06-3aef-468c-83e6-88eae0a3f346" href="/rhev-api/hosts/15896dce-edd0-415c-a524-c9b02f278895/nics/dbb39d06-3aef-468c-83e6-88eae0a3f346">
  <name>eth0</name>
  -<actions>
    <link rel="attach" href="/rhev-api/hosts/15896dce-edd0-415c-a524-c9b02f278895/nics/dbb39d06-3aef-468c-83e6-88eae0a3f346/attach"/>
    <link rel="detach" href="/rhev-api/hosts/15896dce-edd0-415c-a524-c9b02f278895/nics/dbb39d06-3aef-468c-83e6-88eae0a3f346/detach"/>
  </actions>
  <link rel="statistics" href="/rhev-api/hosts/15896dce-edd0-415c-a524-c9b02f278895/nics/dbb39d06-3aef-468c-83e6-88eae0a3f346/statistics"/>
  <host id="15896dce-edd0-415c-a524-c9b02f278895" href="/rhev-api/hosts/15896dce-edd0-415c-a524-c9b02f278895"/>
- <network>
  <name>rhev</name>
</network>
<mac address="78:E7:D1:E4:8E:92"/>
<ip netmask="255.255.252.0" address="10.35.16.151"/>
</host_nic>
- <host_nic id="0d98b08c-9b42-45a4-a226-b7dd3f0854cf" href="/rhev-api/hosts/15896dce-edd0-415c-a524-c9b02f278895/nics/0d98b08c-9b42-45a4-a226-b7dd3f0854cf">
  <name>eth1</name>
  -<actions>
    <link rel="attach" href="/rhev-api/hosts/15896dce-edd0-415c-a524-c9b02f278895/nics/0d98b08c-9b42-45a4-a226-b7dd3f0854cf/attach"/>
    <link rel="detach" href="/rhev-api/hosts/15896dce-edd0-415c-a524-c9b02f278895/nics/0d98b08c-9b42-45a4-a226-b7dd3f0854cf/detach"/>
  </actions>
  <link rel="statistics" href="/rhev-api/hosts/15896dce-edd0-415c-a524-c9b02f278895/nics/0d98b08c-9b42-45a4-a226-b7dd3f0854cf/statistics"/>
  <host id="15896dce-edd0-415c-a524-c9b02f278895" href="/rhev-api/hosts/15896dce-edd0-415c-a524-c9b02f278895"/>
  <mac address="78:E7:D1:E4:8E:93"/>
  <ip netmask="" address=""/>
</host_nic>
</host_nics>
```

Done



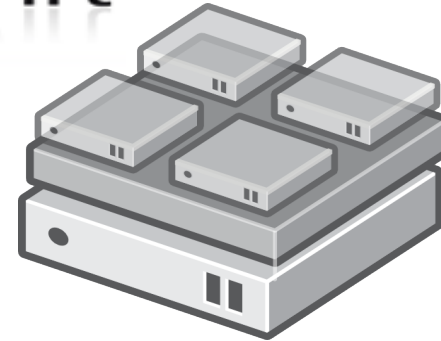
- Standalone hypervisor
 - Small footprint ~ 170MB
 - Customized 'spin' of Fedora + KVM
 - 'Just enough' Fedora to run virtual machines
 - Runs on all RHEL hardware with Intel VT/AMD-V CPUs
 - Easy to install, configure and upgrade
 - PXE boot, USB boot, CD or Hard drive

oVirt Node vs. Full Host

oVirt Node

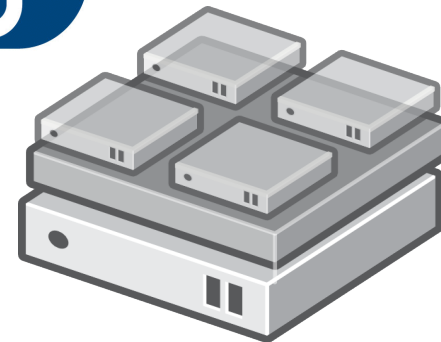
- Small footprint
- Pre-configured, no Linux skills needed.

oVirt



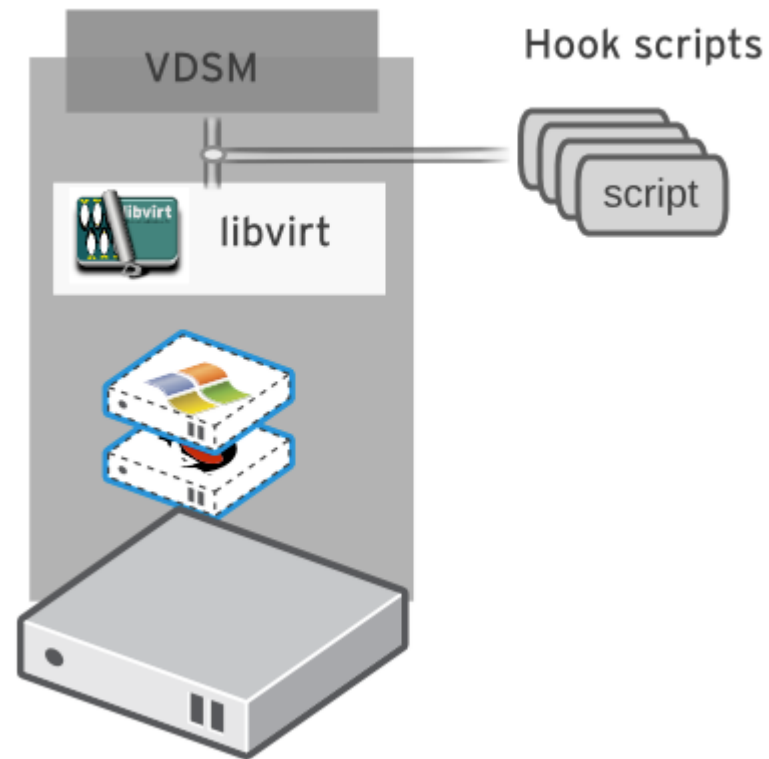
Full Host

- Flexible
- Add monitoring agents, scripts etc. Leverage existing Fedora infrastructure.
- Hybrid mode capable



Hooks

- “Hook” mechanism for customization
 - Allows administrator to define scripts to modify VM operation
 - eg. Extend or modify VM configuration



- Hook scripts are called at specific VM lifecycle events
 - VDSM (management agent) Start
 - Before VM start
 - After VM start
 - Before VM migration in/out
 - After VM migration in/out
 - Before and After VM Pause
 - Before and After VM Continue
 - Before and After VM Hibernate
 - Before and After VM resume from hibernate
 - Before and After VM set ticket New in 3.1
 - On VM stop
 - On VDSM Stop
- Hooks can modify a virtual machines XML definition before VM start
- Hooks can run system commands – eg. Apply firewall rule to VM

Features



Feature	Description
Scalability	Extend your virtualization environment by adding more host nodes
High Availability	Restart guest VMs from failed hosts automatically on other hosts
Host Live Migration	Move running VM between hosts with zero downtime
Storage Live Migration	Move running VM between storage domains with zero downtime
Network Filtering	Control network traffic in your virtualization environment
Port Mirroring	Mirror network traffic to a specific VM
Image Management	Template based provisioning, thin provisioning and snapshots
Live Snapshots	Take snapshot of a running virtual machine
Direct LUNs	Being able to attach block devices as volumes directly to virtual machines
Shared/Floating Disks	Share and hotplug disks between virtual machines

Features



Feature	Description
System Scheduler	Continuously load balance VMs based on resource usage/policies
Power Saver	Concentrate virtual machines on fewer servers during off-peak hours
Maintenance Manager	No downtime for virtual machines during planned maintenance windows. Hypervisor patching
Monitoring Tools	For all objects in system – VM guests, hosts, networking, storage etc.
SLA-MOM	A policy engine to help with memory management
Reports	Customized JasperReports and JasperServer reporting tools
OVF Import/Export	Import and export VMs and templates using OVF files
V2V & P2V	Convert Physical servers or VMs from Vmware and Xen
Remote Access	SPICE and VNC protocols for accessing your virtual machines
USB and Smartcards	Passthrough USB and Smartcards to VMs

Features



Feature	Description
Gluster Support	Manage your Gluster volumes and bricks, and integrate them with oVirt
REST API	RESTful web service using HTTP methods to control oVirt objects
Development Tools	Python SDK and CLI Shell

Getting oVirt



- Obtain from oVirt website
- Live USB - http://wiki.ovirt.org/wiki/OVirt_Live
- Build from source
- Fedora repositories (oVirt 3.1)
 - `yum install ovirt-engine`
 - `./ovirt-setup`
 - Add managed hosts

How To Contribute or Download



- **Website and Repository:**
 - <http://www.ovirt.org>
 - <http://www.ovirt.org/wiki>
 - <http://www.ovirt.org/project/subprojects/>
- **Mailing lists:**
 - <http://lists.ovirt.org/mailman/listinfo>
- **IRC:**
 - #ovirt on OFTC



and now is a good time for....
Questions?



THANK YOU !

<http://www.ovirt.org>